

EXHIBIT A

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Volume Estimates for 5 acre C&D Landfill Cell

Assumptions:

Square 5-acre cell with each side 467 ft.
Depth 50 feet below ground surface
Northeast side is a 30 degree slope to ground level
Working face is northeast side.
Waste is compacted by a factor of 2 over transportation density.
Bottom liner and leachate collection (3 ft. protective layer with leachate collection)

Airspace in landfill cell is 342,293 cy below ground surface. Following compaction landfill capacity is 684,586 cy below ground.

Landfill can be extended to 50 ft. above ground to match Phase V height.
Landfill cell above ground is modeled as a spherical cap
Maximum height 50 ft above ground
Cap volume is 109,655 cy airspace.
Waste volume in cap is 219,310 following compaction.
Total waste capacity at 50 ft above ground is estimated to be 903,896 cy
C&D cells when continually worked do not require daily cover.

Volume Estimates for 5 acre MSW Landfill Cell

Assumptions:

Use County estimates of 123,000 cy (24%) of volume is cover materials,
Cover materials are not compactable
Existing permit requirements for 4 feet of materials used for bottom liner/leachate.

5-acre MSW cell with 50 ft below ground and 50 feet above total airspace = 448,395 cy
Cover materials occupy 123,000 cy
Airspace remaining for waste 320,962 cy
Waste capacity following compaction 641,924 cy



Backup for C&D waste volumes

Landfill footprint	5 acres	217800 sf	24,200 Sq. Yds
Landfill base Height		50 ft	16.67 Yds
Landfill horizontal surface	4.138 ac	180,262 sf	19,738.5 sq. Yds
Slope section	0.922 ac	40,162 sf	4,493sq Yds
Landfill base airspace	329,040 cy		
Slope section Airspace	37,453 cy		
Total underground airspace	366,493 cy		
withdraw bottom liner space	-24200		
Total available underground	342,293 cy		
Above ground Sphere	386 ft diameter	50 ft at top	13002 sq. yds
Volume in shperical cap	109,655 cy		
Airspace base + sphere	451,948 cy		
Waste compaction factor	2X		
C&D waste capacity	903,896 cy		

Backup for MSW

difference in Bottom liner	7986 cy
Cover materials	123,000 cy
Remaining airspace for waste	320,962 cy
MSW Landfill waste capacity	641,924 cy

